IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A light modulator modulating light by changing a reflection direction of an incident light, comprising:

a light reflection film regularly reflecting the incident light;

a center beam which is formed out of a thin film constituted to be combined with said light reflection film, which has both ends fixed, and which is configured to be deformed by an electrostatic force, wherein said reflection film is provided on a first surface of said center beam;

a substrate electrode which is opposed to said center beam through a gap formed on a second surface of said center beam;

an opposed surface which is a surface of said substrate electrode opposed to said center beam modulating the incident light on said light reflection film, said opposed surface restricting a deformation of said center beam due to application of a driving voltage to said substrate electrode by abutting on said center beam; and

a substrate which has a concave section in which said substrate electrode having said opposed surface is formed, and said substrate holds a to-be-held section of said center beam, wherein

said center beam is configured to deform along said concave section of said substrate such that said light reflection film has an irregular shape when said center beam is driven by said driving voltage and the incident light is reflected by said light reflection film in random directions when said center beam is driven by said driving voltage and the incident light is reflected in one direction when said center beam is not driven.

Claim 2 (Original): The light modulator according to claim 1, wherein

said light reflection film is formed out of a metallic thin film.

Claim 3 (Original): The light modulator according to claim 1, wherein said center beam is formed out of a low resistance material.

Claim 4 (Previously Presented): The light modulator according to claim 3, wherein the low resistance material of said center beam is formed by decreasing a resistance of silicon by diffusing impurities into said silicon.

Claim 5 (Original): The light modulator according to claim 1, wherein said center beam is formed out of a monocrystalline silicon film.

Claim 6 (Original): The light modulator according to claim 1, wherein said center beam is formed out of a polycrystalline silicon film.

Claim 7 (Original): The light modulator according to claim 1, wherein said center beam is formed out of a silicon nitride thin film.

Claim 8 (Previously Presented): The light modulator according to claim 1, wherein two edges of ends opposed to each other of the to-be-held section of said center beam are fixed to the substrate.

Claim 9 (Previously Presented): The light modulator according to claim 1, wherein a distance between the two edges of said center beam held by the substrate is equal to or larger than a length of one edge of said two edges.

Claim 10 (Original): The light modulator according to claim 1, wherein

a plurality of light reflection films, a plurality of center beams and a plurality of substrate electrodes are arranged in a form of a one-dimensional array on said substrate.

Claim 11 (Original): The light modulator according to claim 1, wherein

a plurality of light reflection films, a plurality of center beams and a plurality of substrate electrodes are arranged in a form of a two-dimensional array on said substrate.

Claim 12 (Previously Presented): The light modulator according to claim 1, wherein

the opposed surface of said substrate electrode comprises a parallel opposed surface which is parallel to said center beam.

Claim 13 (Previously Presented): The light modulator according to claim 1, wherein

the opposed surface of said substrate electrode comprises a partially non-parallel opposed surface which is partially non-parallel to said center beam.

Claim 14 (Previously Presented): The light modulator according to claim 1, wherein

the opposed surface of said substrate electrode comprises a plurality of non-parallel opposed surfaces which are non-parallel to said center beam.

Claim 15 (Previously Presented): The light modulator according to claim 1, wherein

the opposed surface of said substrate electrode comprises an entirely non-parallel opposed surface which is entirely non-parallel to said center beam.

Claim 16 (Original): The light modulator according to claim 1, wherein said substrate is made of a light transmission glass material.

Claim 17 (Original): The light modulator according to claim 1, wherein said substrate is made of a monocrystalline silicon material.

Claim 18 (Original): The light modulator according to claim 17, wherein a part of or all of a driving circuit is formed in the monocrystalline silicon material of said substrate.

Claim 19 (Previously Presented): The light modulator according to claim 1, wherein the gap formed between said center beam held by said substrate and the substrate electrode opposed to said center beam and formed on the concave section of said substrate, comprises a non-parallel inclined surface.

Claim 20 (Previously Presented): The light modulator according to claim 19, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam and comprising the non-parallel inclined surface, is shaped to be largest in a central section of said center beam and to gradually enlarge from two opposed edges of said center beam toward said central section of said center beam.

Claim 21 (Previously Presented): The light modulator according to claim 19, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam and comprising the non-parallel inclined surface, is shaped to be largest in a central section of said center beam and to gradually enlarge from two opposed edges of said

center beam and other two edges of said center beam toward said central section of said center beam.

Claim 22 (Previously Presented): The light modulator according to claim 19, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam and comprising the non-parallel inclined surface, is shaped to be largest near one of two opposed edges of said center beam held by said substrate and to gradually enlarge from the other edge of said two opposed edges of said center beam toward said one edge.

Claim 23 (Previously Presented): The light modulator according to claim 1, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam, comprises a non-parallel inclined surface between two edges on both ends opposed to each other of said center beam.

Claim 24 (Previously Presented): The light modulator according to claim 23, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam and comprising the non-parallel inclined surface, is shaped to be largest in a central section of said center beam held by said substrate and to gradually enlarge from said two opposed edges of said center beam toward said central section of said center beam.

Claim 25 (Previously Presented): The light modulator according to claim 23, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam and comprising the non-parallel inclined surface, is shaped to be largest in a central section of said center beam held by said substrate and to gradually enlarge from said

two opposed edges of said center beam and other two edges of said center beam toward said central section of said center beam.

Claim 26 (Previously Presented): The light modulator according to claim 23, wherein the gap formed between said center beam and the substrate electrode opposed to said center beam and comprising the non-parallel inclined surface, is shaped to be largest near one of the two opposed edges of said center beam held by said substrate and to gradually enlarge from the other edge of said two edges of said center beam toward said one edge.

Claim 27 (Previously Presented): The light modulator according to claim 1, wherein the to-be-held section of said center beam comprises a plurality of divided to-be-held sections.

Claim 28 (Original): The light modulator according to claim 27, wherein said divided to-be-held sections are arranged in a corner section of said center beam.

Claim 29 (Original): The light modulator according to claim 27, wherein said divided to-be-held sections each has a connection section connected to said center beam having a smooth outline section.

Claim 30 (Previously Presented): The light modulator according to claim 1, wherein the to-be-held section of said center beam held by the substrate comprises a folded structure section.

Claim 31 (Previously Presented): The light modulator according to claim 13, wherein

the to-be-held section of said center beam, near a portion of the gap formed between at least said center beam and the substrate electrode opposed to said center beam and comprising a non-parallel inclined surface that has a largest clearance, comprises a plurality of divided to-be-held sections.

Claim 32 (Previously Presented): The light modulator according to claim 13, wherein the to-be-held section of said center beam, near a portion of the gap formed between at least said center beam and the substrate electrode opposed to said center beam and comprising a non-parallel inclined surface that has a largest clearance, comprises a folded structure section.

Claim 33 (Previously Presented): The light modulator according to claim 1, wherein said center beam comprises a member having a tensile stress.

Claim 34 (Previously Presented): The light modulator according to claim 1, wherein combinations of (i) thicknesses (t) of a plurality of members constituted to be combined with said center beam and (ii) stresses (σ) including a tensile stress with a plus sign and a compressive stress with a minus sign are ($t1$, $\sigma1$), ($t2$, $\sigma2$), ... (tn, σn), said center beam satisfies $(t_1 \cdot \sigma_1 + t_2 \cdot \sigma_2 + \ldots + t_n \cdot \sigma_n) / (t_1 + t_2 + \ldots + t_n) = 0$.

Claim 35 (Previously Presented): The light modulator according to claim 1, wherein said center beam has a relationship of $(t/1)2 \geq \sigma/E$ with respect to a tensile stress (σ), a thickness (t), Young's modulus(E) of a formation material, and a distance (l) between two edges on both ends opposed to each other of said center beam.

Claim 36 (Original): The light modulator according to claim 1, wherein all of or a part of a driving circuit driving the center beam is formed on said substrate.

Claim 37 (Previously Presented): The light modulator according to claim 1, wherein said center beam is abutted on a surface of said substrate and deformed along a clearance shape of a gap formed on the second surface of said center beam by the electrostatic force generated by the application of the driving voltage to a portion between said center beam and said substrate electrode.

Claim 38 (Previously Presented): The light modulator according to claim 1, wherein after said center beam is deformed by the electrostatic force generated by the application of the driving voltage to a portion between said center beam and said substrate electrode, a voltage opposite in polarity to the driving voltage is applied to the portion between said center beam and said substrate electrode to an extent not to deform said center beam.

Claim 39 (Original): The light modulator according to claim 1, wherein said center beam is deformed by alternately applying, as the driving voltage, a positive voltage and a negative voltage to a portion between said center beam and said substrate electrode with reference to a potential of said center beam.

Claims 40-44 (Canceled).

Claim 45 (Currently Amended): A light information processing apparatus processing light information using a light modulator modulating light by changing a reflection direction of an incident light beam, comprising:

a plurality of light modulators each of which modulates the light by changing the reflection direction of the incident light beam, and each of which comprises:

a light reflection film regularly reflecting the incident light,

a center beam which is formed out of a thin film constituted to be combined with said light reflection film, which has both ends fixed, and which is configured to be deformed by an electrostatic force, wherein said reflection film is provided on a first surface of said center beam,

a substrate electrode which is opposed to said center beam through a gap formed on a second surface of said center beam,

an opposed surface which is a surface of said substrate electrode opposed to said center beam modulating the incident light on said light reflection film, said opposed surface restricting a deformation of said center beam due to application of a driving voltage to said substrate electrode by abutting on said center beam, and

a substrate which has a concave section in which said substrate electrode having said opposed surface is formed, and said substrate holds a to-be-held section of said center beam, wherein

said center beam is configured to deform along said concave section of said substrate such that said light reflection film has an irregular shape when said center beam is driven by said driving voltage and the incident light is reflected by said light reflection film in random directions when said center beam is driven by said driving voltage and the incident light is reflected in one direction when said center beam is not driven; and

an independent driving unit which drives said plurality of light modulators independently of one another.

Claim 46 (Currently Amended): An image formation apparatus forming an image by wiring optical data by an electrophotographic process, comprising:

an image carrier which is rotatably held, and which carries a to-be-formed image;

a latent image formation unit which forms a latent image by writing the optical data on said image carrier, and which comprises a light modulator, said light modulator modulates light by changing a reflection direction of an incident light, and comprises:

a light reflection film regularly reflecting the incident light,

a center beam which is formed out of a thin film constituted to be combined with said light reflection film, which has both ends fixed, and which is configured to be deformed by an electrostatic force, wherein said reflection film is provided on a first surface of said center beam,

a substrate electrode which is opposed to said center beam through a gap formed on a second surface of said center beam,

an opposed surface which is a surface of said substrate electrode opposed to said center beam modulating the incident light on said light reflection film, said opposed surface restricting a deformation of said center beam due to application of a driving voltage to said substrate electrode by abutting on said center beam, and

a substrate which has a concave section in which said substrate electrode having said opposed surface is formed, and said substrate holds a to-be-held section of said center beam, wherein

said center beam is configured to deform along said concave section of said substrate such that said light reflection film has an irregular shape when said center

beam is driven by said driving voltage and the incident light is reflected by said light reflection film in random directions when said center beam is driven by said driving voltage and the incident light is reflected in one direction when said center beam is not driven;

a development unit which develops the latent image formed by said light modulator of said latent image formation unit, and which forms a toner image; and

a transfer unit which transfers the toner image formed by said development unit onto a to-be-transferred body.

Claim 47 (Currently Amended): An image projection and display apparatus projecting and displaying an image, comprising:

a light switching unit which comprises a light modulator, said light modulator modulating light by changing a reflection direction of an incident light, and comprising:

a light reflection film regularly reflecting the incident light,

a center beam which is formed out of a thin film constituted to be combined with said light reflection film, which has both ends fixed, and which is configured to be deformed by an electrostatic force, wherein said reflection film is provided on a first surface of said center beam,

a substrate electrode which is opposed to said center beam through a gap formed on a second surface of said center beam,

an opposed surface which is a surface of said substrate electrode opposed to said center beam modulating the incident light on said light reflection film, said opposed surface restricting a deformation of said center beam due to application of a driving voltage to said substrate electrode by abutting on said center beam, and

a substrate which has a concave section in which said substrate electrode having said opposed surface is formed, and said substrate holds a to-be-held section of said center beam, wherein

said center beam is configured to deform along said concave section of said substrate such that said light reflection film has an irregular shape when said center beam is driven by said driving voltage and the incident light is reflected by said light reflection film in random directions when said center beam is driven by said driving voltage and the incident light is reflected in one direction when said center beam is not driven; and

a projection screen displaying the image projected by said light modulator of said light switching unit.

Claim 48 (Currently Amended): A light modulator modulating light by changing a reflection direction of an incident light, comprising:

a reflection unit which regularly reflects light;

a thin film both-end-fixed beam which is formed out of a thin film constituted to be combined with said reflection unit provided on a first side surface of said thin film both-end-fixed beam, which has both ends fixed, and which is configured to be deformed by an electrostatic force;

a substrate electrode which is opposed to said thin film both-end-fixed beam, and which applies a driving voltage;

a gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam, and which is formed on a second side surface of said thin film both-end-fixed beam;

a substrate which has a concave section in which said substrate electrode is formed on a bottom of said gap-and the substrate holds and fixes said both ends of said thin film both-end-fixed beam; and

a hole section which is formed in said thin film both-end-fixed beam above said gap, and which makes a section of said thin film both-end-fixed beam corresponding to said hole section to deform more easily than remaining sections of said hole section, wherein

said thin film both-end-fixed beam is configured to deform along said concave section of said substrate such that said reflection unit has an irregular shape when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected by said reflection unit in random directions when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected in one direction when said thin film both-end-fixed beam is not driven.

Claim 49 (Original): The light modulator according to claim 48, wherein the reflection unit is made of a metallic thin film.

Claim 50 (Previously Presented): The light modulator according to claim 48, wherein the thin film both-end-fixed beam is made of monocrystalline silicon.

Claim 51 (Previously Presented): The light modulator according to claim 48, wherein the thin film both-end-fixed beam is made of polycrystalline silicon.

Claim 52 (Previously Presented): The light modulator according to claim 48, wherein the thin film both-end-fixed beam is made of silicon nitride.

Claim 53 (Previously Presented): The light modulator according to claim 48, wherein the gap is non-parallel between the thin film both-end-fixed beam and the substrate electrode.

Claim 54 (Original): The light modulator according to claim 53, wherein the gap has an apex angle section on a substrate electrode-side bottom.

Claim 55 (Original): The light modulator according to claim 48, wherein the hole section is rectangular.

Claim 56 (Original): The light modulator according to claim 48, wherein the hole section is circular.

Claim 57 (Previously Presented): The light modulator according to claim 48, wherein a plurality of the hole sections are arranged in a direction corresponding to a tangential direction of a fixed end of the thin film both-end-fixed beam.

Claim 58 (Previously Presented): The light modulator according to claim 48, wherein a plurality of the hole sections are arranged in a direction perpendicular to a tangential direction of a fixed end of the thin film both-end-fixed beam.

Claim 59 (Previously Presented): The light modulator according to claim 48, wherein the hole section is arranged so that one of a long diameter direction and a long edge direction corresponds to a tangential direction of a fixed end of the thin film both-end-fixed beam.

Claim 60 (Original): The light modulator according to claim 48, wherein

the hole section is arranged at an opposed position near an apex angle section of the gap.

Claim 61 (Original): The light modulator according to claim 48, wherein

the reflection unit is arranged at a position of the hole section in contact with an edge.

Claims 62-63 (Canceled).

Claim 64 (Currently Amended): An image formation apparatus forming an image by wiring optical data by an electrophotographic process, comprising:

an image carrier which is rotatably held, and which carries a to-be-formed image;

a latent image formation unit which forms a latent image by writing the optical data on said image carrier, and which comprises a light modulator, said light modulator which modulates light by changing a reflection direction of an incident light comprises:

a reflection unit which regularly reflects light,

a thin film both-end-fixed beam which is formed out of a thin film constituted to be combined with said reflection unit provided on a first side surface of said thin film both-end-fixed beam, which has both ends fixed, and which is configured to be deformed by an electrostatic force,

a substrate electrode which is opposed to said thin film both-end-fixed beam, and which applies a driving voltage,

a gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam, and which is formed on a second side surface of said thin film both-end-fixed beam,

a substrate which has a concave section in which said substrate electrode is formed on a bottom of said gap, and the substrate holds and fixes said both ends of said thin film both-end-fixed beam, and

a hole section which is formed in said thin film both-end-fixed beam above said gap, and which makes a section of said thin film both-end-fixed beam corresponding to said hole section to deform more easily than remaining sections of said hole section, wherein

said thin film both-end-fixed beam is configured to deform along said concave section of said substrate such that said reflection unit has an irregular shape when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected by said reflection unit in random directions when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected in one direction when said thin film both-end-fixed beam is not driven;

a development unit which develops the latent image formed by said light modulator of said latent image formation unit, and which forms a toner image; and

a transfer unit which transfers the toner image formed by said development unit onto a to-be-transferred body.

Claim 65 (Currently Amended): An image projection and display apparatus projecting and displaying an image, comprising:

a light switching unit which comprises a light modulator, said light modulator modulates light by changing a reflection direction of an incident light, and comprises:

a reflection unit which regularly reflects light,

a thin film both-end-fixed beam which is formed out of a thin film constituted to be combined with said reflection unit provided on a first side surface of said thin film both-end-fixed beam, which has both ends fixed, and which is configured to be deformed by an electrostatic force,

a substrate electrode which is opposed to said thin film both-end-fixed beam, and which applies a driving voltage,

a gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam, and which is formed on a second side surface of said thin film both-end-fixed beam,

a substrate which has a concave section in which said substrate electrode is formed on a bottom of said gap, and the substrate holds and fixes said both ends of said thin film both-end-fixed beam, and

a hole section which is formed in said thin film both-end-fixed beam above said gap, and which makes a section of said thin film both-end-fixed beam corresponding to said hole section to deform more easily than remaining sections of said hole section, wherein

said thin film both-end-fixed beam is configured to deform along said concave section of said substrate such that said reflection unit has an irregular shape when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected by said reflection unit in random directions when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected in one direction when said thin film both-end-fixed beam is not driven; and

a projection screen displaying the image projected by said light modulator of said light switching unit.

Claim 66 (Currently Amended): A light modulator modulating light by deforming a beam which reflects light, by an electrostatic force, comprises:

an electrode acting the electrostatic force on said beam is provided inside a recess of a substrate opened to an upper surface of said substrate, said beam is held by said substrate at a position opposed to said electrode so as to be projected from the upper surface of said substrate; and

a non-parallel gap is formed between said beam and said recess in a state in which no electrostatic force acts on said beam, said non-parallel gap being generally rectangular in a plane including the upper surface of said substrate and said beam, wherein

said beam is configured to deform along said non-parallel gap such that said beam has an irregular shape when said beam is driven by a driving voltage and incident light is reflected by said beam in random directions when said beam is driven by said driving voltage and the incident light is reflected in one direction when said beam is not driven.

Claim 67 (Original): The light modulator according to claim 66, wherein

said beam is a both-end-fixed beam having both ends fixed to the upper surface of said substrate, the fixed both ends of said beam being generally L-shaped.

Claim 68 (Original): The light modulator according to claim 66, comprising:

a support proximate to a fixed end of said beam to assist in recovery of said beam when the electrostatic force acting on said beam is released.

Claim 69 (Previously Presented): The light modulator according to claim 68, wherein said support is made of a same material as a material of the beam.

Claim 70 (Previously Presented): The light modulator according to claim 66, wherein said beam comprises a film having a tensile residual stress.

Claims 71-72 (Canceled).

Claim 73 (Currently Amended): A light modulator, comprising:

a fixed electrode;

a beam which is opposed to said fixed electrode through a gap and which has a light reflection surface; and

a light emission element, wherein

said fixed electrode, said beam, and said light emission element are formed in a same package, and

said beam is held to be deformable toward said fixed electrode by an electrostatic force when said beam is driven by a driving voltage, <u>said beam is configured to deform along said gap such that said light reflection surface has an irregular shape when said beam is driven and</u> a light emitted from said light emission element is reflected by said light reflection surface in random directions when said beam is driven and in one direction when said beam is not driven, and the reflection light from said reflection surface is outputted to an outside of the package when said beam is driven or not driven.

Claim 74 (Original): The light modulator according to claim 73, wherein said beam is a both-end-fixed beam.

Claim 75 (Original): The light modulator according to claim 73, wherein

said light emission element is an electroluminescence element.

Claim 76 (Original): The light modulator according to claim 73, wherein

said fixed electrode and said beam are formed on a same substrate, and said light emission element is formed on a package upper cover connected to said substrate while being opposed to said beam.

Claim 77 (Original): The light modulator according to claim 76, wherein

a convex section which converges the light emitted from said light emission element on said beam, is formed on said package upper cover.

Claim 78 (Original): The light modulator according to claim 73, wherein

said fixed electrode, said beam and said light emission element are formed on a same substrate, and a concave mirror, which converges the light emitted from said light emission element on said beam, is formed on a package upper cover connected to said substrate.

Claim 79 (Original): The light modulator according to claim 73, wherein

said fixed electrode, said beam and said light emission element are formed on a same substrate, and a waveguide path, which guides the light emitted from said light emission element into said gap, is formed in said substrate.

Claim 80 (Original): The light modulator according to claim 73, wherein

a shielding film is formed on a package upper cover, and the light reflected by the light reflection surface on said beam is outputted to an outside of the package through a window provided in the shielding film.

Claim 81 (Original): The light modulator according to claim 73, wherein the light emission element does not emit light while the beam is deformed.

Claim 82 (Currently Amended): A light modulator modulating light by changing a reflection direction of an incident light, comprising:

a reflection unit which regularly reflects the incident light;

a thin film both-end-fixed beam which is formed out of a thin film constituted to be combined with said reflection unit, which has both ends fixed, and which is configured to be deformed by an electrostatic force, said light reflection unit provided on a first surface of said thin film both-end-fixed beam;

a substrate electrode which is opposed to a second surface of said thin film both-end-fixed beam, and which applies a driving voltage;

a gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam;

a substrate which has said substrate electrode formed in a bottom of said gap, and which holds both ends of said thin film both-end-fixed beam; and

a cover member which is formed to be attached onto said substrate, encloses said thin film both-end-fixed beam and said gap in a vacuum space, and which is made of a light transmission material, wherein

said thin film both-end-fixed beam is configured to deform along said gap such that said reflection unit has an irregular shape when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected by said reflection unit in random directions when said thin film is driven by said driving voltage and the incident light is reflected in one direction when said thin film is not driven.

Claim 83 (Previously Presented): The light modulator according to claim 82, wherein said thin film both-end beam is made of a monocrystalline silicon thin film.

Claim 84 (Previously Presented): The light modulator according to claim 82, wherein said thin film both-end beam is made of a polycrystalline silicon thin film.

Claim 85 (Previously Presented): The light modulator according to claim 82, wherein said thin film both-end beam is made of an amorphous silicon thin film.

Claim 86 (Previously Presented): The light modulator according to claim 82, wherein said thin film both-end beam is made of a silicon nitride thin film.

Claim 87 (Previously Presented): The light modulator according to claim 82, wherein said thin film both-end beam is made of a metallic thin film.

Claim 88 (Previously Presented): The light modulator according to claim 82, wherein the gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam, is non-parallel.

Claim 89 (Previously Presented): The light modulator according to claim 82, wherein a part of or all of said thin film both-end beam is abutted on a bottom of the gap formed on said substrate when said thin film both-end beam is deformed by an electrostatic force which is generated when said substrate electrodes applies the driving voltage.

Claim 90 (Original): The light modulator according to claim 82, wherein said substrate is made of monocrystalline silicon.

Claim 91 (Original): The light modulator according to claim 82, wherein said substrate is made of optical glass.

Claim 92 (Original): The light modulator according to claim 91, wherein said substrate is made of a transparent conductive film.

Claim 93 (Original): The light modulator according to claim 82, wherein said cover member is made of a glass material.

Claim 94 (Original): The light modulator according to claim 82, wherein a getter material is formed in the vacuum space formed by said substrate and said cover member.

Claim 95 (Previously Presented): The light modulator according to claim 82, wherein an attachment section which attaches said substrate to said cover member, comprises a metallic seal layer.

Claim 96 (Original): The light modulator according to claim 82, wherein a difference in coefficient of thermal expansion between said cover member and said substrate is not more than 0 to 30%.

Claim 97 (Original): The light modulator according to claim 82, wherein

said cover member has at least one of a lens, an anti-reflection film and a shielding film formed in a path of the incident light on said reflection unit.

Claim 98 (Original): The light modulator according to claim 82, wherein

said cover member has at least one of a lens, an anti-reflection film and a shielding film formed in a path of reflection light from said reflection unit.

Claim 99 (Original): The light modulator according to claim 82, wherein

said cover member comprises an engraved section formed in an attachment section attached to said substrate.

Claim 100 (Previously Presented): The light modulator according to claim 82, wherein

said thin film both-end-fixed beam formed on said substrate is hexagonal-shaped.

Claim 101 (Original): The light modulator according to claim 82, wherein

a plurality of light modulators are arranged in a form of one of a one-dimensional array and a two-dimensional array.

Claim 102 (Original): The light modulator according to claim 101, wherein

said plurality of light modulators are arranged in a staggered fashion in the form of one of the one-dimensional array and the two-dimensional array.

Claims 103-105 (Canceled).

Claim 106 (Currently Amended): An image formation apparatus forming an image by wiring optical data by an electrophotographic process, comprising:

an image carrier which is rotatably held, and which carries a to-be-formed image;

a latent image formation unit which forms a latent image by writing the optical data on said image carrier, and which comprises a light modulator, said light modulator which modulates light by changing a reflection direction of an incident light, and which comprises:

a reflection unit which regularly reflects the incident light,

a thin film both-end-fixed beam which is formed out of a thin film constituted to be combined with said reflection unit, which has both ends fixed, and which is configured to be deformed by an electrostatic force, said light reflection unit provided on a first surface of said thin film both-end-fixed beam,

a substrate electrode which is opposed to a second surface of said thin film both-end-fixed beam, and which applies a driving voltage,

a gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam,

a substrate which has said substrate electrode formed in a bottom of said gap, and which holds both ends of said thin film both-end-fixed beam, and

a cover member which is formed to be attached onto said substrate, encloses said thin film both-end-fixed beam and said gap in a vacuum space, and is made of a light transmission material, wherein

said thin film both-end-fixed beam is configured to deform along said gap such that said reflection unit has an irregular shape when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected by said reflection unit in random directions when said thin film both-end-fixed beam is driven

by said driving voltage and the incident light is reflected in one direction when said thin film both-end-fixed beam is not driven;

a development unit which develops the latent image formed by said light modulator of said latent image formation unit, and which forms a toner image; and

a transfer unit which transfers said toner image formed by said development unit onto a to-be-transferred body.

Claim 107 (Currently Amended): An image projection and display apparatus projecting and displaying an image, comprising:

a light switching unit which comprises a light modulator, said light modulator modulating light by changing a reflection direction of an incident light, and comprising:

a reflection unit which regularly reflects the incident light,

a thin film both-end-fixed beam which is formed out of a thin film constituted to be combined with said reflection unit, which has both ends fixed, and which is configured to be deformed by an electrostatic force, said light reflection unit provided on a first surface of said thin film both-end-fixed beam,

a substrate electrode which is opposed to a second surface of said thin film both-end-fixed beam, and which applies a driving voltage,

a gap which is formed by opposing said substrate electrode to said thin film both-end-fixed beam,

a substrate which has said substrate electrode formed in a bottom of said gap, and which holds both ends of said thin film both-end-fixed beam, and

a cover member which is formed to be attached onto said substrate, encloses said thin film both-end-fixed beam and said gap in a vacuum space, and is made of a light transmission material, wherein

said thin film both-end-fixed beam is configured to deform along said gap such that said reflection unit has an irregular shape when said thin film both-end-fixed beam is driven by said driving voltage and the incident light is reflected by said reflection unit in random directions when said thin film is driven by said driving voltage and the incident light is reflected in one direction when said thin film is not driven; and

a projection screen displaying the image projected by said light modulator of said light switching unit.